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The Bulletin of the University of Minnesota

West Central School and Station
Morris, Minnesota
Announcement for the Year
1918 - 1919

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SCHOOL CALENDAR

1918-1919

1918			
October	I	Tuesday	First term opens; registration
October	2	Wednesday	Organization of classes
November	2	Saturday	Field Day
November	28	Thursday	Thanksgiving Day; a holiday
December	14	Saturday	Inter-society Debate
December	20	Friday	First term closes; Christmas vacation begins
1919			
January	6	Monday	Christmas vacation ends; second term opens; registration
January	7	Tuesday	Organization of classes
February	12	Wednesday	Lincoln's Birthday (special exercises)
February	17	Monday	Farmers' Short Course opens
February	22	Saturday	Washington's Birthday (special exercises)
February	22	Saturday	Farmers' Short Course closes
March	24	Monday	Commencement Week
March	27	Thursday	Junior-Senior-Alumni Banquet
March	28	Friday	Commencement Day
March	31	Monday	Junior Short Course opens
April	5	Saturday	Junior Short Course closes
May	30	Friday	Memorial Day; a holiday
June	10	Tuesday	Short Course for Farm Women opens
June	13	Friday	Short Course for Farm Women closes
June	16	Monday	Teachers' Training School opens
July	4	Friday	Independence Day; a holiday
July	25	Friday	Teachers' Training School closes

WEST CENTRAL SCHOOL AND STATION

FACULTY

AT MORRIS

PAUL E. MILLER, B.S., Superintendent Frederick A. Stever, B.A., Preceptor and Registrar Irma Hathorn, B.A., Preceptress Mary E. King, B.A., Librarian

AGRICULTURAL ENGINEERING

OLE O. Bye, Carpentry and Farm Structures Albert C. Heine, Farm Engineering Gerard Quitney, Blacksmithing

AGRONOMY

THEODORE ODLAND, B.S., Agronomy and Farm Management Otto Swenson, Assistant in Agronomy

ANIMAL HUSBANDRY

PHILIP S. JORDAN, B.S., Animal and Dairy Husbandry

HORTICULTURE

JOHN A. ANDERSON, B.S., Botany and Horticulture

HOME ECONOMICS

MILDRED KIMBALL, B.S., Foods and Cookery GLADYS GOODNOUGH, B.S., Sewing and Dressmaking

SCHOOL

Frederick A. Stever, B.A., Science Mary E. King, B.A., Social Science Ida M. Olien, B.A., English and Public Speaking Irma Hathorn, B.A., Mathematics Edwin J. Volden, Accounting Mae Middleton, Music and Physical Training

OFFICERS OF ADMINISTRATION

OLE O. Bye, Superintendent of Buildings CATHERINE LEAHY, B.S., Matron FLORENCE HULETT, R.N., School Nurse EDWIN J. VOLDEN, Accountant ANNA McCARTHY, Secretary

COMMITTEES

Program.—Superintendent MILLER, JORDAN, STEVER, Miss HATHORN, Miss King.

Short Course for Farmers .- JORDAN, ANDERSON, BYE, ODLAND.

Short Course for Farm Women.—Miss Hathorn, Superintendent Miller, Stever.

Student Affairs.—Stever, Heine, Odland, Miss Kimball, Miss King.
Social.—Heine, Anderson, Miss Goodnough, Miss Hathorn, Miss
Middleton.

GENERAL INFORMATION

PURPOSE

The West Central School of Agriculture is an institution established primarily for the training of young men for the profession of farming, and young women for the profession of home making. The courses are planned and the subjects are taught with the purpose of making the students masters of this work. The courses are sufficiently extended to give, not only a fairly complete technical knowledge of the business of production, but a working basis for the economic and sociological aspects of farm life. The farmer must have a broad grasp of his profession in its relationships with other callings, as well as a realization of the possibilities of its social development.

LOCATION

The School is admirably situated to serve the west central part of the state. It adjoins the city of Morris and is situated upon a natural rise of ground overlooking the Pomme de Terre Valley. The campus with its twenty buildings, beautiful lawns, and pleasant drives is one of the beauty spots of this section.

ADMISSION

The school will admit any young man or young woman who desires technical training in Agriculture and Home Economics. It is desirable that prospective students should have completed the eighth grade altho those who have not completed eighth grade work will be admitted, and opportunity will be given to complete this work. Mature young men and women who have been out of school for one or more years and desire special training in Agriculture and Home Economics will be admitted. In certain lines of work, high-school subjects will be accepted for advanced credit.

TIME OF OPENING

The School of Agriculture will open Tuesday, October 1 and the fall term will close Friday, December 20. The winter term will open Monday, January 6, and close Friday, March 28. The School work covers a period of six months at a time when the students can best be spared from home.

SPECIAL INFORMATION

Old or new students planning to attend the School of Agriculture should write early to the Registrar asking him to reserve a room. Students may reserve rooms in advance by paying a deposit fee of two dollars, which will be refunded upon entering school. If the student is unable to enter school the deposit may be reclaimed before September 15. Each dormitory room is furnished with two single beds, dresser, table, chairs, curtains, sheets, bed spreads, pillows, and pillow cases. Each

student should bring with him quilts and blankets for one single bed, towels, comb, brushes, and other toilet articles. Prospective students are urged to correspond with the Superintendent and make all the necessary arrangements for registration.

Preferences as to roommates should be stated early and will be considered so far as possible.

Students more than two weeks late in entering may not be able to complete all of the term's work without conditions. If a student can not enter before the middle of November, he should wait until January 6 for the new term and new classes to start.

All trains will be met by special committees Tuesday, October 1. Students are urged to enter school promptly at the beginning of the semester.

EXPENSES

The expenses at the institution are as low as it is possible to make them. They are as follows:

Incidental fee (per year)	\$5.00
Board (per week)	3.00
Room, light, heat, and flat laundry (per week)	1.25
Deposit (per year; to be returned)	5.00
Hospital fee (per term)	1.00

On entering the school each student should bring sufficient money to pay for one month's board and room, and to pay for his books and fees. This will amount to from \$30 to \$35.

It should be remembered that these expenses for fees are for the entire semester, and after the first month the only expenses are for board and room.

Music fees for private lessons are \$7 for each semester. Piano rental is \$2.50 per term.

No increases will be made unless living costs necessitate an increase in the cost of board. Board and room are payable one month in advance. Small fees, to cover the cost of material used, are charged for certain of the laboratory courses. The amount of the fee in each case will be found in the description of the course. When a student drops such a course within two weeks after registration the laboratory fee will be refunded. The five dollar deposit, less deductions for breakage and other damage to school property, will be returned in full at the end of the year.

The buildings are lighted by electricity and heated by steam. The charge for room (\$1.25 per week) covers the entire period during which the room is occupied. No deductions for board will be made unless arrangements are made at the beginning of the semester with the matron. Any student who makes arrangements in advance to be gone regularly Sunday and Monday will receive a pro rata reduction in board. An extra charge will be made for guests.

REQUIREMENTS FOR GRADUATION

- I. Completion of the prescribed course of study including all required work and enough electives to make a total of 150 credit hours.
- 2. Two summers of supervised home project work. This will apply to all classes graduating after 1919.
 - 3. An honorable standing in deportment.
- All bills payable either at School or in the city of Morris must be settled.

INCOMPLETES OR FAILURES

The passing grade in all subjects is 75. When students are unable to complete a term's work because of sickness or other unavoidable cause an "incomplete" will be given in that subject which may be made up during the first month of the following semester.

When the average for the term's work is below 75, a failure in that subject will be given and the student will be required to take that subject a second time.

Students who have not been absent more than three times throughout the semester and who have obtained a grade of 90 or above in any subject will be excused from final examination in that subject.

STUDENT LOAN FUNDS

The Gilfillan Trust Fund

This fund of \$50,000 is the gift of the Honorable John B. Gilfillan, of Minneapolis, in trust to the University of Minnesota, the annual income from which shall be at the disposal of the Executive Committee of its Board of Regents either as a gift or a temporary loan to worthy students of the University who are residents of Minnesota. The annual income from the fund is \$2,000 which is loaned to students on their notes in amounts not exceeding \$200 to any one person in one year, at the rate of five per cent per annum.

This fund may be used by students of the West Central School of Agriculture in accordance with the action of the Board of Regents taken September 26, 1916. The regulations governing the administration of the income from the fund may be learned by addressing the Superintendent of the West Central School of Agriculture, Morris, Minnesota.

BUILDINGS AND EQUIPMENT

The institution now has nine brick buildings: The Girls' Dormitory with facilities for 75 girls; the Boys' Dormitory with equal accommodations; Music Hall with two studios and numerous practice rooms; Home Economics Building with sewing laboratory, cooking laboratory, kitchen, dining room, pantry, and three lecture rooms; Agronomy Building with farm crops laboratory, chemistry laboratory, and four lecture rooms; Engineering Building with wood shop, forge shop, farm mechanics laboratory, drafting room and three lecture rooms; Stock Judging Pavilion and dairy laboratory; Dining Hall and Gymnasium with large modern dining

room and gymnasium; all laboratories and shops are fully equipped which makes possible the best of instruction.

The seven farm buildings give ample housing facilities for the herds, flocks, and farm equipment, which are available for student use.

HOME LIFE ON THE CAMPUS

The dormitory life of the students while attending the School of Agriculture is subject to supervision. Everything possible is done to promote a healthful, moral atmosphere.

The Preceptor and Preceptress have charge of the students in their dormitories and the regulations enforced are for the best interests of all students.

From 8 a.m. till 4 p.m. students are busy with their school work. From 4 to 6 p.m. is a recreation period in which students' time is at their own disposal. After 7:30 p.m. students are expected to be in their rooms and to be quiet so that all may study undisturbed. Students are permitted to leave the campus only upon permission of the Preceptor or Preceptress.

The use of tobacco and spirituous liquors of all kinds is strictly forbidden. Anyone not in accord with these restrictions and not willing to lend a hand toward strong, moral growth should not come to the School of Agriculture.

ASSEMBLY PERIOD

A forty-minute assembly period is held each morning throughout the school year. Students are required to attend these assembly exercises. A short religious service opens this chapel period and is followed by special music or speaking. It is the purpose of the school to secure prominent speakers to address the student body at these morning exercises.

HOLIDAYS

Lincoln's and Washington's birthdays will be appropriately observed. On Thanksgiving day no classes will be held, but school will continue as usual on the Friday and Saturday following.

STUDENT ORGANIZATIONS

Students are urged to join a literary society. These societies offer pleasure as well as profit. They afford a training in conducting meetings, parliamentary law, and public speaking obtainable in no other way.

The following societies hold regularly weekly meetings during the school year: The Vincent Literary Society, the Agricolae Literary Society, the Ceres Club.

An intersociety debate cup for the promotion of interest in civic and political questions has been offered by the Superintendent.

Both the Young Men's and Young Women's Christian Associations have local organizations. Sunday mornings and evenings services are conducted under the direction of these associations.

Boys' and Girls' Glee Clubs are organized and trained throughout the school year. These clubs appear at various school functions.

Band and orchestra organizations have been perfected during the past year. Credit will be given for membership and regular attendance at practices and entertainments.

INTERSCHOLASTIC ACTIVITIES

Each year the School is represented by two debating teams which debate similar institutions.

In athletics the school is represented by both football and basket ball teams. These teams schedule games with the high schools of this section.

LECTURE COURSE

During the school year a lecture and entertainment course, consisting of four or five numbers, is given at a cost of one dollar for the series. These entertainments are strictly high grade and furnish a pleasant relaxation from regular school work.

LIBRARY

The library is well equipped to supply the needs of the students. A large number of books has been selected to meet the requirements of the various departments. These, with the government and station reports, are available for use by instructors and students.

The Librarian is always ready to give whatever assistance she can in directing students in the selection of the books they may need in the pursuit of their work.

EXPERIMENT STATION

The West Central School and Station is now conducting extensive experiments in agronomy, soils, horticulture, animal husbandry, and agricultural engineering. Beginning with 1915 a special report has been issued each year reporting the progress of the work.

SCHOOL FARM

The farm comprises approximately 400 acres and furnishes an extensive laboratory for the work of the School. Information concerning the methods employed on the farm are always available to the students. The classroom work is supplemented with actual practice either in the field or with crops grown upon the farm.

STATION FLOCKS AND HERDS

The School now maintains an abundance of livestock all of which is used for student work in the Animal Husbandry Department. Purebred Holstein, Guernsey, Shorthorn, and Angus cattle; grade and purebred Percheron horses; Shropshire sheep; Duroc-Jersey hogs; White Leghorn and Barred Plymouth Rock chickens are maintained for station and school purposes. These furnish excellent opportunities for students intelligently to study the various courses in animal husbandry.

COURSES

LONG COURSES

The regular courses cover a period of three sessions of six months each, beginning in October and closing in March. The long course for young men is so arranged as to make it possible for a student to select a large portion of his work in any one of the three lines: agronomy, animal husbandry, or agricultural engineering. The long course for young women permits of special training in home management, dressmaking, teaching, music, home nursing, public speaking, business training, etc. Both young men and young women may receive credit in music in connection with any of the courses. They may also choose academic subjects in the third and fourth years, preparatory to college entrance. The main emphasis of the institution is given to its long courses, and all are urged to complete the three sessions.

ADVANCED COURSES

It has been found that the eighteen months of the long course is a very short time in which to give all of the work that should be included in a satisfactory course. Therefore a fourth six months of work is offered. During this fourth session, graduates of the long course may elect to specialize in one of the lines of work listed below. They may, at the same time, choose from the elective lists subjects that they could not obtain during their first three sessions. The major lines of work suggested for boys are dairying, beef production, farm engineering, carpentry, advanced farm management, and academic subjects. The major lines for girls are dressmaking, advanced home management, nursing, music, and business training.

COLLEGE PREPARATORY

Graduates of the West Central School of Agriculture who have completed two summers of supervised work on their own farms, one additional school year of six months and one additional summer's work or the equivalent thereof, will be admitted to the College of Agriculture, Forestry, and Home Economics of the University of Minnesota.

DEPARTMENT OF MUSIC

For those who are interested, credit courses in piano instruction are offered. Ten half-hour and ten group lessons per term are given with special time for practice. Fees of \$7 per term for the lessons and \$2.50 per term for piano rental are charged. Special rooms are set aside for practice, making it possible to do good, thoro work. A class in musical theory meets once a week, and instruction is also given in the history of music, ear training, and the rudiments of harmony.

HOME PROJECT WORK

For the last several years students have done some home project work. In 1918 this work was definitely organized and placed on a credit basis. The purpose of this work is to promote and extend the technical work given in the classrooms and laboratories during the regular school sessions. The approved methods of agricultural practice are applied to some branch of the farm which the project is designed to cover. Reports are required throughout the season and the work is at all times in charge of supervisors who make numerous visits to each student.

During 1918 the projects for boys included Sheep Management, management of the Dairy Herd, Corn Growing, Alfalfa Growing, Potato Growing, Fertilizer Tests, Forage Crops, and Farm Accounts. For girls the projects include Canning, Bread Baking, Millinery, Sewing, Home Accounts, Home Decoration, Poultry, Gardening, and Music.

FARMERS' SHORT COURSE

The Annual Farmers' Short Course will be held during the third week in February, 1919. This course, lasting one week, is designed for mature farmers who can not leave their farms for a longer period of time. The days are given over to practical discussions and demonstrations of the problems of the farm. The subjects of livestock feeding and management, dairy production, farm crops, soils, horticulture, farm management, and farm engineering will be discussed by men of experience who are recognized as authorities in these subjects.

A special circular will be issued in January giving full particulars and the complete program.

JUNIOR SHORT COURSE

During the week following the close of the regular school session, will be held the seventh annual Junior Short Course, March 31 to April 5. This course is open to all boys and girls from 12 to 18 years old. A charge of \$3 is made which covers all expenses including board and room for the entire week. Boys are given work in the machine shops, forge and woodwork shops, farm crops laboratories, and stock judging pavilion. The girls are given work in sewing, cooking, and home nursing. At the close of the week contests in corn and stock judging will be held for the boys and the winner of each contest will be given a free trip to the 1919 Minnesota State Fair. For the girls, contests in bread making and canning are held, with scholarships to the School of Agriculture as prizes. A big spelling contest will also be one of the features of this boys' and girls' week. Games, music, entertainments, and a special Junior Short Course party will make the entire week one of great interest to all those who attend. Special moving picture entertainments are given free each evening. A special circular describing this short course will be ready for distribution in February, 1919.

SHORT COURSE FOR FARM WOMEN

An annual short course for farm women is held during the second week in June. The main object of this course is to provide a few days of rest and recreation for the women of the farms in West Central Minnesota. Talks, lectures, and demonstrations along lines of interest to farm women will fill in part of the day. The large dormitory and dining-hall will provide ample living accommodations, and part of each day will be given to rest and recreation. The fee for the entire course, including room and board, is \$4. This course is offered June 10 to 13, 1019.

TEACHERS' TRAINING SCHOOL

A State Teachers' Training School organized by the Department of Education and conducted under its supervision, will be held at the West Central School of Agriculture from June 16 to July 26, 1919. The faculty will be made up from the staff of the School who will offer the technical work, and a corps of instructors from the State Department who will offer the usual summer courses. The buildings, equipment, and library of the school are available for all teachers who attend.

The purpose of the school is first, to afford academic instruction in the subjects required for common-school certificates, first and second class; second, to offer professional training in the common-school subjects and to provide the means by which teachers who seek to earn a first-class certificate may meet the professional standards in those subjects which are now required by law; third, to offer instruction and professional training in such special subjects as will entitle teachers to receive a first-class certificate or one of higher rank; fourth to give instruction in Agriculture, Manual Training, and Home Training, as now required of teachers of these subjects in consolidated schools.

The special circular describing the summer session may be had by addressing the Superintendent, West Central School of Agriculture, Morris. Minnesota.

COURSES OF STUDY REQUIRED FOR GRADUATION

Three Year Course

BOYS

FIRST YEAR						
	Fall Term	Winter Term				
Cre		Credit				
Ho	English A	Hours 5 English B				
5	Corn	5 Cereal Crop	os			
5	Farm Accounts	5 Anatomy-H				
5	Types and Breeds Carpentry	5 Industrial (3 Gas En	Geography or			
2	Blacksmithing	2 Carpentry	igines			
1	Milk Testing	2 Blacksmithi				
I	Spelling Gymnasium	ı Stock Judg ı Penmanshir	I Stock Judging			
1	Gymnasium	ı Gymnasium				
		SECOND YEAR				
		Fall Term				
		REQUIRED SUBJECTS				
		5 English C				
		5 Chemistry 1 Gymnasium				
	AGRONOMY or	Animal Husbandry or	Agrl, Engineering			
2	Grain Judging 1		5 Drainage			
3	Garden and Orchard 2		3 Mechanical Drawing			
9	Elective	Elective	6 Elective			
		Winter Term				
		REQUIRED SUBJECTS				
		5 Agricultural Physics				
		5 English D 1 Gymnasium				
	AGRONOMY or	Animal Husbandry or	AGRL. ENGINEERING			
4	Forage Crops 5		3 Farm Structures A			
5	Feeds and Feeding 4 Elective 4		3 Rural Sanitation 8 Elective			
5	4	Elective	o Ekctive			
		THIRD YEAR				
		Fall Term				
		REQUIRED SUBJECTS				
		5 English E				
		1 Gymnasium				
5	AGRONOMY or Farm Management A 3	Animal Husbandry or Animal Breeding	AGRL. ENGINEERING 3 Gas Engines B			
	Elective 1		3 Farm Structures B			
	15	Elective	3 Elective			

Winter Term

REQUIRED SUBJECTS

- 5 English F
- 1 Gymnasium
- AGRONOMY or
- Animal Husbandry or AGRL. ENGINEERING
- 2 Farm Management B 5 Soils
 - 16 Elective
- 3 Animal Diseases 5 Farm Mechanics
 - 14 Elective

12 Elective

Note: In the second and third years, students choosing one group may elect from either of the other two groups, or from the following general list until a total of 25 hours is filled.

ELECTIVE LIST

The following list of electives is open to juniors and seniors, from which they may complete their classification:

- 3 Beef Production, first term
- Dairy Production, second term 3
- 3 Poultry, second term
- Commercial Seed Production, first
- Advanced Farm Management
- 3 Garden and Orchard, first term
- 3 Botany, second term 5 Advanced Carpentry, first and sec-
- ond terms Cement Construction, first and sec-
- ond terms 6 Traction Engineering, second term
- 6 Steam Engineering

- 2 Electricity
- 3 Mechanical Drawing, first and second terms
 - Algebra, first and second terms
- 5 Geometry, first and second terms 5
- 2 Business Accounting, second term 2 Public Speaking, second term
- 2 Debate, second term
- 3 Government and Law, first term
- 5 United States History, second term 5 General History, first and second term
- 5 Home Literature, first term
- 3 Music, first and second terms

GIRLS

FIRST YEAR

First Term

Credit Hours

- 5 English A
- 2 Garment Making A
- 3 Foods and Cookery A 5 Home Nursing A
- 1 Gymnasium
- 1 Spelling
- 8 Electives

Second Term

Credit Hours

- 5 English B
- 2 Garment Making B
- 3 Foods and Cookery B
- 1 Gymnasium A 1 Penmanship
- 13 Elective

ELECTIVES

- House Planning and Decoration
- Commercial Geography
- Home Accounts
- Garden and Orchard

SECOND YEAR

5	English C	5 English D	
3	Food Preservation	3 Dietetics	
2	Dressmaking A	2 Dressmaking B	
I	Gymnasium B	ı Gymnəsium B	
5	General History A	5 General History	В
_	Floativo	o Flective	

ELECTIVES

5 Algebra	5 House Planning and Decoration
5 Food and Household Chemistry	5 Home Nursing B
2 Piano	2 Textiles

THIRD YEAR

5	English E	5	English F
5	United States History	5	Government
3	Home Management A	3	Home Management B
2	Dressmaking C	3	Dressmaking D
1	Gymnasium C	1	Gymnasium C
9	Elective	9	Elective

ELECTIVES

5	Geometry		5	Home Nursing	C
5	Household	Physics	2	Music	
2	Textiles		5	Government	

GENERAL ELECTIVE LIST

2	Piano	2 Public Speaking
1	History of Music	½ Glee Club
I	Theory of Music	2 Dressmaking E
2	Art Needlework	7 Millinery

Note: The electives are to be chosen from the special electives for each year or from the general elective list.

DESCRIPTION OF COURSES

AGRONOMY AND FARM MANAGEMENT

- CORN GROWING. A study of the corn plant; its botanical structure; relation to soil and climate; selection and testing; soil preparation; harvesting; diseases; silage; varieties and corn judging, supplemented with laboratory practice. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits; fee 50 cents.
- Grain Growing. A study of the principal cereal crops. Seed selection; soil and cultural requirements; harvesting. Classroom work supplemented with laboratory practice. Rec. 3 hrs.; Lab. 2, 2 hrs.; fee, 50 cents.
- CORN AND GRAIN JUDGING. Score card practice, commercial grading and judging work with the object in view of making the student proficient in the judging and growing of pure-bred seed. Lab. 2, 2 hrs.; 2 credits; fee, \$1.00.
- Forage Crops. A study of the leguminous crops, clover, alfalfa, etc., pastures and meadows, and the annual forage crops. Cultural requirements of forage crops and their importance on the farm. Rec. 2 hrs.; Lab. 2, 2 hrs.; 4 credits; fee, \$1.75.
- COMMERCIAL SEED PRODUCTION. The breeding and growing of pure-bred seed corn and grain upon the farm, and the best methods of marketing these products. Lab. 2, 2 hrs.; 2 credits; fee, 50 cents.
- Soils. This course is applied to the needs of western Minnesota. Soil formation; soil types, soil physics, soil chemistry, soil tillage, and the use of fertilizers are given chief attention. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits; fee, \$1.00.
- FARM MANAGEMENT I. The management of the land, labor, and capital in their relation to the farm business. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits.
- FARM MANAGEMENT II. A study of farm accounts. The student keeps a practical set of books on the year's work, from the taking of the inventory to closing the accounts at the end of the year. Lab. 2, 2 hrs.; 2 credits.
- ADVANCED STUDIES IN FARM MANAGEMENT. Advanced work in some of the more important problems of farm management, including farm Iabor, cost of production, marketing, and similar subjects. Rec. 1 hr.; Lab. 4, 2 hrs.; 5 credits.
- Garden and Orchard. The planning, planting, culture, value, and management of the orchard and garden upon the general farm. Rec. 2 hrs.; Lab. 1, 2 hrs.; 3 credits.

BOTANY. The principles of elementary Botany. Intended for students who may wish to use the credit for college entrance. Rec. 2 hrs.; Lab. 2, 2 hrs.; 4 credits.

ANIMAL AND DAIRY HUSBANDRY

- TYPES AND BREEDS. The study of the history, development, characteristics, and adaptability of the various breeds of horses, cattle, sheep, and swine. Rec. 5 hrs.; 5 credits.
- MILK TESTING. Principles of milk testing. The students are given a practical working knowledge of herd testing and record work. Lab. 1, 2 hrs.; 1 credit; fee, 50 cents.
- STOCK JUDGING A. The study and practice in the use of the score card, showing the relation of body structure to economical production.

 Lab. 1, 2 hrs.; 1 credit.
- STOCK JUDGING B. Competitive and comparative judging of all classes of livestock. Lab. 1, 2 hrs.; 1 credit.
- STOCK JUDGING C. A continuation of Stock Judging B. Lab. 1, 2 hrs.; I credit.
- STOCK JUDGING D. A continuation of Stock Judging C. Lab. 1, 2 hrs.;
- FEEDS AND FEEDING. The general composition of the animal body; the composition and digestibility of foods; feeding standards; methods of feeding. Rec. 5 hrs.; 5 credits.
- Animal Breeding. The theory and practice of animal breeding, including variation, heredity, selection, effect of pure-bred animals in improving types of stock, and pedigrees. Rec. 3 hrs.; 33 credits.
- Animal Diseases. The causes, prevention and cure of animal diseases, including emergency treatment. Rec. 3 hrs.; 3 credits.
- BEEF PRODUCTION. The production of beef cattle, both pure-bred and market stock, including from a practical standpoint, feeding and management of the herd, the selection of breeding stock, and the arrangement of buildings and yards. Rec. 2 hrs.; Lab. 1, 2 hrs.; 3 credits.
- POULTRY. Practical instruction in the breeding and care of poultry for general farm use. Rec. 2 hrs.; 2 credits.
- Dairy Production. An advanced course designed to fit a student for the successful management of a dairy herd. Rec. 2 hrs.; Lab. I, 2 hrs.; 3 credits.

AGRICULTURAL ENGINEERING

- WOODWORK A. Carpentry: care, use, and sharpening tools; laying off work; making of joints and framing. Work designed to be especially helpful in planning, framing, and construction of farm buildings. Lab. 2, 3 hrs.; 2 credits; fee, \$1.25.
- Woodwork B. Continuation of Course A. Lab. 2, 3 hrs.; 2 credits; fee, \$1.25.
- Forge Work A. Blacksmithing: forging, and welding of iron and steel, making and tempering hand tools. Work designed to be especially helpful in the repair and operation of machinery. Lab. 2, 3 hrs.; 2 credits; fee, \$1.50.
- Forge Work B. Continuation of Forge Work A. Lab. 2, 3 hrs.; 2 credits; fee, \$1.50.
- MECHANICAL DRAWING A. The use of drawing instruments, lettering, and the making of working drawings. Lab. 3, 2 hrs.; 3 credits.
- Drainage and Surveying. Practice with level and chain; work in leveling, ditching, locating, laying tile, running lines, figuring areas, staking out buildings, mapping, and estimating costs. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits.
- FARM STRUCTURES A. The design, location, and erection of farm buildings; study of proper pitches; roof trusses; barn frames; estimates of costs. Working models are made in the shop from these plans. Lab. 3, 2 hrs.; 3 credits.
- FARM STRUCTURES B. A continuation of Farm Structures A. Designing of buildings needed on the home farm, and the working out of a general plan that will meet the builder's requirements. Lab. 3, 2 hrs.; 3 credits.
- Rural Sanitation. The lighting, heating, and ventilation of farm buildings; a study of lighting systems; plumbing; systems of water supply and sewage disposal. Rec. 3 hrs.; 3 credits.
- MECHANICAL DRAWING B. A continuation of Mechanical Drawing A. Practice in designing, in isometric drawing, and projection. Drawings are made from parts of such machines as gas engines and cream separators. Lab. 3, 2 hrs.; 3 credits.
- CEMENT CONSTRUCTION. Properties of sand, gravel, cement, and concrete. Practice in proportioning and mixing concrete; in making concrete blocks and fence posts, and in designing foundations. Lab. I, 2 hrs.; I credit; fee, \$1.00.
- GAS ENGINES A. Development, existing types, theory and practice of operation, adjustment, repair, and utility of the internal combustion

- engine. Practice in valve and ignition timing, in valve grinding, and the adjustment of bearings. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits; fee, \$1.50.
- Traction Engineering. A course including a study of the construction, repair, and operation of the traction engine. Rec. 3 hrs.; Lab. 3, 2 hrs.; 6 credits.
- STEAM ENGINEERING. A study of the construction, operation, and repair of the steam traction engine. The course leads to the state examinations for engineer's license. Rec. 3 hrs.; Lab. 3, 2 hrs.; 6 credits.
- ELECTRICITY. A study of electricity with reference to its use on the farm, including lighting and power plants, magnetos, dynamos, and motors. Rec. 1 hr.; Lab. 1, 2 hrs.; 2 credits.
- FARM MECHANICS. Farm machinery and farm motors. Selection, use, and care of tilling, seeding, harvesting, threshing, and fertilizing machinery. Work is given with pumping and grinding machinery; transmission of power, grading machinery, etc. Rec. 3 hrs.; Lab. 2, 2 hours; 5 credits; fee, \$1.25.
- ADVANCED CARPENTRY. Preparation aiming to bring together in applied way earlier elements of course, with such topics as designing and estimating. Final credit dependent upon eight months of actual work under approved carpenter. Lab. as arranged.

ENGLISH

- ENGLISH A. Reading, spelling, and a brief review of the principles of grammar. Considerable time is devoted to oral reports. Short written themes required. Rec. 5 hrs.; 5 credits.
- ENGLISH B. Continuation of English A. Letter writing in connection with simple sentence and paragraph structure. Several selections are memorized. Rec. 5 hrs.; 5 credits.
- ENGLISH C. Letter writing and spelling continued. Standard books and selections of interest are read. The outline is used extensively in oral and written work. Rec. 5 hrs.; 5 credits.
- English D. A continuation of English C. Rec. 5 hrs.; 5 credits.
- ENGLISH E. Advanced work in written composition of a narrative type.

 An appreciation of good literature is cultivated by extensive reading.

 Rec. 5 hrs.; 5 credits.
- ENGLISH F. Reading and advanced composition of descriptive, expository, and argumentative types continued. The derivation, usage, and meaning of words. Rec. 5 hrs.; 5 credits.

- Spelling. Students are required to secure one credit in spelling. Rec. 1 hr.; 1 credit.
- PENMANSHIP. Students are required to secure one credit in penmanship Rec, I hr.; I credit.
- Public Speaking A. Practice in conducting meetings and presenting material before public gatherings. Rec. 2 hrs.; 2 credits.
- Public Speaking B. A continuation of Public Speaking A. Rec. 2 hrs.; 2 credits.
- Public Speaking C. Students will be trained to present readings before the public. Rec. 2 hrs.; 2 credits.
- Public Speaking D. Continuation of Public Speaking C. Rec. 2 hrs.; 2 credits.
- Public Speaking E. Designed to give boys training in extemporaneous speaking and debate. Rec. 2 hrs.; 2 credits.
- Public Speaking F. A continuation of Public Speaking E. Rec. 2 hrs.; 2 credits.

MATHEMATICS

- FARM ACCOUNTS. For boys. Ledger account forms. Drill is given in rapid calculation and accuracy. Application of the keeping of accounts to farm operations.
- HOME ACCOUNTS. For girls. Similar to Farm Accounts for boys except that application is made to home instead of farm work. Rec. 5 hrs.; 5 credits.
- ALGEBRA A. Designed to cover the usual first year academic credit work in Elementary Algebra. Rec. 5 hrs.; 5 credits.
- ALGEBRA B. Continuation of Course A. Rec. 5 hrs.; 5 credits.
- PLANE GEOMETRY A. Planned to cover usual academic course in Plane Geometry. Rec. 5 hrs.; 5 credits.
- PLANE GEOMETRY B. Completion of Plane Geometry A. Rec. 5 hrs.; 5 credits.
- Business Accounting. Business mathematics for those specializing in engineering, carpentry, etc. Rec. 2 hrs.; 2 credits.

PHYSICAL TRAINING

Anatomy-Hygiene (For boys). Comparative anatomy and human hygiene. An introduction to the later animal husbandry course and a preparation for the care of the health.

- GYMNASIUM (Girls). All students will be required to take gymnasium work during their entire residence at the school. Girls will be organized into classes for exercises, folk dances, and games. I credit.
- GYMNASIUM (Boys). Credit will be allowed to boys for membership on school teams, and participation in special lines of gymnasium work which they will be allowed to elect. 1 credit.

SOCIAL SCIENCE

- COMMERCIAL GEOGRAPHY. Designed to give the student a view of the broad relation of Geography to Commerce. Rec. 5 hrs.; 5 credits.
- GENERAL HISTORY. This course is designed to give the student a general outlook upon civilization in the making, and to show what nations and men have helped civilization in its onward course. Rec. 5 hrs.; 5 credits.
- American History. This course is designed to present in a clear, concise and connected manner the main events in the history of the American people. Rec. 5 hrs.; 5 credits.
- GOVERNMENT AND LAW. Local, state, and national governmental forms and practices. A brief study of common contracts, deeds, mortgages, line fences, etc. Rec. 5 hrs.; 5 credits.

PHYSICS

- HOUSEHOLD PHYSICS. The mechanics of solids, liquids, and gases. Application of the principles is made to home problems. One half of the term is devoted to heat in its relation to the household. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits.
- AGRICULTURAL PHYSICS. A simple and practical course in Physics. The work includes the mechanics of solids, fluids, heat, and sound with a few assignments from the subjects of light and electricity. Rec. 5 hrs.: 5 credits.

CHEMISTRY

- GENERAL CHEMISTRY. A general introductory course preparatory to a later course in Food and Household Chemistry. Rec. 3 hrs.; Lab. 2, 2 hrs.; fee, \$1.00.
- FOOD AND HOUSEHOLD CHEMISTRY. Continuation of Foods and Cookery B, applying the general principles of chemistry to food in all of its uses. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits; fee, \$1.00.
- AGRICULTURAL CHEMISTRY. A general introductory course preparatory for later work in agronomy, animal husbandry. Fee, \$1.00.

HOME ECONOMICS

DOMESTIC ART

- GARMENT MAKING A. A gymnasium suit, consisting of bloomers and blouse, a cooking outfit, and a kimono are made in the first term. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.
- GARMENT MAKING B. The laboratory work consists in the making of a four-piece suit of underwear. The various kinds of material and their wearing qualities; simple decoration and trimmings and the cost of the finished garments are discussed. Rec. I hr.; Lab. 2, 2 hrs.: 2 credits.
- DRESSMAKING A. Each girl makes herself a snug-fitting waist and skirt which is placed on a dress form and padded out. This form is used throughout the rest of the course. A shirt waist and wool dress are made during the term. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.
- Dressmaking B. The making of summer dresses. A house dress and a light summer dress are made. The suitability of material and design, color and lines, and cost of the garments are discussed. Rec. I hr.; Lab. 2, 2 hrs.; 2 credits.
- Dressmaking C. A wool suit is made in this term. Special attention is given to standard materials, color, lines, and cost of outside garments. Materials are purchased under direction of the instructor. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.
- Dressmaking D. Continuation of the work in Dressmaking C, making an inexpensive graduation dress. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.
- Dressmaking E. This course is open to any one wishing extra work in dressmaking. Lab. 2, 2 hrs.; 2 credits.
- Textiles. Manufacture of cloth from wool, cotton, silk, and flax fiber; adulterations of cloth and the methods of detecting such adulterations; relation of clothing to health; clothes budgets, etc.
- ART NEEDLE WORK. Color combinations, making designs for embroidering, and stenciling. Several pieces of fancy work are completed during the course. Lab 2, 2 hrs.; 2 credits.
- Home Decoration. Selection of furnishings, draperies, etc., for the home. Rec. 5 hrs.; 5 credits.
- MILLINERY. Practice in making various sorts of hat trimmings and hat frames, and the completion of one hat. Lab. 2 hrs.; 1 credit; fee, 50 cents.

DOMESTIC SCIENCE

FOODS AND COOKERY A. The laboratory work consists in practice in cooking cereals, soups, vegetables, fruits, and some simple desserts. The

- lecture work deals with the source of food products, the digestibility of foods, and the theory of cooking. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits; fee, \$1.00.
- FOODS AND COOKERY B. The laboratory work includes the making of pancakes, muffins, biscuit, bread, cakes, cookies, etc., and the cooking of meats and eggs. The lecture work is a continuation of that of the first term. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits; fee, \$1.00.
- FOOD PRESERVATION. The laboratory work consists largely in canning, pickling, preserving, and jelly making. The lecture work includes the study of cold storage, injurious preservatives, curing of meats, and preserving eggs. Rec. 2 hrs.; Lab. 2, 2hrs.; 3 credits; fee, \$1.50.
- DIETETICS. Invalid cookery, including the preparation of custards, gelatins, ice creams, and beverages. The lecture work is designed to give an understanding of the proper diet for different disease conditions. Rec. 1 hr.: Lab. 2. 2 hrs.: 3 credits: fee. \$1.50.
- Home Management. This is a summary of the previous work offered.

 Plans and devices for saving of labor, money, and time are discussed. Each girl is offered two weeks' practice in actual preparation and serving of meals. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits; fee, \$1.50.
- ADVANCED HOME MANAGEMENT. A continuation of the course in Home Management. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits; fee, 50 cents.

HOME NURSING

- HOME NURSING A. The structures and functions of the human body. Hygiene and the proper care of the sick. Rec. 5 hrs.; 5 credits.
- HOME NURSING B. A continuation of Home Nursing A. Rec. 5 hrs.; 5 credits.
- Home Nursing C. Simple medicines in relation to disease. Rec. 5 hrs.; 5 credits.
- Home Nursing D. Common diseases and methods of prevention; first aid. Rec. 5 hrs.; 5 credits.

MUSIC

PIANO MUSIC

- PIANO PLAYING A. Exercises for hand position and rhythm; two-, three-, and five-finger exercises; major scales. Studies: Gurlitt Technic and Melody; Tapper, First Piano Book, or Graded Studies, Grade I. Solos: Tapper, Sartorio, etc.
- PIANO PLAYING B. Exercises for hand and arm control; thumb exercises, major scales, transposition of five-finger exercises, two- and

- three-finger exercises. Studies: Streabbog's Twelve Very Easy Studies, Czerny Anthology Vol. 1. Solos: Graded Pieces, Grade II.
- Piano Playing C. Scales with different rhythms, one and two notes, 80 mm.; broken chords. Studies: Concone Twenty-four Melodious Studies; Tapper's Graded Studies, Grade III; Czerny Anthology, Vol. II. Solos: Beethoven, Heller, etc.
- Piano Playing D. Scales with different touches, one, two, three, and four notes, 80 mm.; Herz exercises; arpeggios; block chords with pressure and drop arm. Foote, First-year Bach; Czerny; Wrist and Forearm Studies. Solos: Grade III; Mozart; Sonatinas.
- PIANO PLAYING E. Lynnes Key Circle Exercises, Book I; Heller, Opus 47; First-year Bach. Solos: Easy sonatas by Haydn and Mozart. Graded pieces, Grades III and IV, Tapper, Graded Pieces III. Classes in Musical History and Music Theory.
- PIANO PLAYING F. Studies: Schmitt finger exercises; major and minor scales, hands separate, legato and staccato in varied rhythms; octave studies. Solos: Pieces by Schumann, Mendelssohn, Jensen, etc. Easier Beethoven works. Classes in musical history and music theory.

VIOLIN MUSIC

The violin instruction will comprise the correct principles of violin playing. Solo playing will be encouraged and a class in orchestra playing will be a part of the regular study of violin pupils.

Registration for violin lessons will be regulated by the rules governing all musical instruction given at the school.

BAND INSTRUMENTS

Instruction in the various instruments, such as cornet, clarinet, trombone, etc., will be given.

NEW COURSES IN BUSINESS TRAINING

A course in Business Training will be offered to students attending the School of Agriculture beginning with the autumn semester, 1918. The purpose of these business subjects will be to train young women for office positions whereby they may be employed in some gainful occupation until they assume the management of a home of their own. These courses will be elective throughout the three years and they will, in all cases, only supplement the major work in Home Economics. Young men may also elect from this group. The program of subjects and their place in the curriculum is not definitely established. The course will include Stenography, Typewriting, Penmanship, Spelling, Business English, Dictation, Filing and Indexing, Commercial Law, Business Ethics, and Bookkeeping.

SUMMARY OF ATTENDANCE

1917-1918

Regular School Course	Men	Women	Total
Advanced Course	3	I	4
Seniors	8	9	17
Juniors	25	8	33
Freshmen	86	32	118

Total, Regular School Course	122	50	172
Summer Session, 1917	4	97	IOI
Junior Short Course, 1918	40	60	100
Farmers' Tractor School, 1918	87		87
Total	253	207	460

STUDENTS

1917-1918

ADVANCED-4

Sinclair, Wayne, LaMoille Pehl, Ralph, Campbell

SENIORS-17

Mahoney, Francis, Morris Myrum, Agnes, Louisburg Pearson, Victor, Grove City Reisrud, Clara, Starbuck Rolen, Harold, Clinton Stotesbery, Lydia, Barry Ulvestad, Johanna, Morris Spalinger, Mary, Clinton

JUNIORS-33

Odden, Harold, Echo Odden, Olga, Echo Pushor, Kyle, Donnelly Rolighed, Marvin, Appleton Roiland, Tilman, Louisburg Rolin, Vear, Breckenridge Saterlie, Arthur, Appleton Shaw, Curtis, Morris Solvie, Otto, Hancock Swenson, Alvin, Clinton Stock, Carl, Kensington Stegner, Wesley, Beardsley Thompson, William, Glenwood Thoen, Elmer, Dawson Ulvestad, Ruth, Morris Welfare, Edgar, Morris

FRESHMEN-118

Crissy, Raymond, Morris Cook, Gladys, Chokio Dare, Edward, Alberta Dehne, Reuben, Holloway Dosdahl, Henry, Hancock Dolvin, Floyd, Boyd Dell, Mildred, Hardwick Dale, Selina, Dawson Erdahl, Selmer, St. Cloud Erickson, Hjalmer, Osakis Erickson, Hilmer, Glenwood Evjen, Oscar, Starbuck Eystad, Julius, Alberta Eastman, Victor, Beardsley Ecklund, Emma, Chokio Ecklund, Joseph, Chokio Evans, Emily, Correll

Bolstad, Clara, Floodwood Keeler, Herbert, Chokio

Anderson, Stena, Belgrade Brisbane, Gladys, Morris Cummings, Kenneth, Dawson Erdahl, Manford, St. Cloud Erickson, George, Westport Ferrell, Herbert, Morris Hanson, Silas, Harmony Larson, Julia, Lowry Lilienthal, Hazel, Glenwood

Brisbane, Lowell, Morris Cook, Perry, Donnelly Dosen, Karen, Starbuck Dripps, Allen, Morris Erickson, Ethel, Nelson Holtan, Joseph, Dawson Halvorson, Roy, Kerkhoven Hagestuen, Ida, Starbuck James, Harold, Glenwood Kerr, Isabell, Holloway Larson, Arnold, Kensington Larson, Earl, Clinton Lindholm, Godfred, Ortonville Madsen, Carl, Herman Myrum, Viola, Louisburg Mecklenberg, Dora, Nashua Nord, Richard, Wolverton

Anderson, Esther, Morris Anderson, Melvin, Milan Anderson, Gustav, Belgrade Anderson, Edwin, Alberta Althoff, Alfred, Graceville Berg, Carl, Chokio Bjork, Oscar, Morris Bloomquist, Alvin, Starbuck Brownell, Dale, Granite Falls Benson, Melvin, Hancock Behl, Foster, Morris Barsness, Clarence, Starbuck Barsness, Sherman, Glenwood Bode, Alfred, Echo Clark, Morris, Paynesville Carter, Harold, Eagle Bend Crissy, Orville, Morris

Fauskee, Ella, Brooten Farness, Lillian, Milan Feuser, Edward, Louisburg Fiene, Hugo, Echo Grindahl, Luella, Belgrade Hagestuen, Clarence, Starbuck Helgeson, Clarence, Dawson Hiland, Lucius, Colgan, N. D. Hovde, Brynjolf, Glenwood Halvorson, Lavina, Louisburg Harris, Fred, Carlos Hendrixon, Stella, Kensington Hoyum, Lillian, Dawson Howard, Myra, Minneapolis Jandt, Paul, Wendell Jerpseth, Sam, Madison Johnson, William, Kerkhoven Jensen, Jens, Morris Kolodgy, Louis, Donnelly Koosman, Gertrude, Correll Kleven, Alfred, Milan Kirkwold, Clayton, Glenwood Kampmeier, George, Alberta Koll, Ella, Hardwick Lerdahl, Edward, Cyrus Lewig, Laura, Nashua Leaf, Earl, Homer McDermond, Lyle, Bertrum Maxwell, Charles, Dawson Melin, Berger, Appleton Molenaar, Clarence, Raymond Marple, Lawrence, Wendell Madsen, Alice, Herman Nelson, Gust, Ortonville Mystuen, Reuben, Morris Norberg, Gladys, Kensington Nielson, Elenius, Morris Nelson, Jessie, Dawson Nelson, Marie, Starbuck Nordstrom, Lillian, Kensington Olson, Walter, Pennock Olson, William, Watson

Ogdahl, Norman, Glenwood Olmiem, Edward, Starbuck Ostlund, Oscar, Hoffman Oldenberg, George, Montevideo Palmquist, Clarence, White Rock, S. D. Peterson, Norman, Starbuck Peterson, Leonard, Starbuck Peterson, Oselia, Starbuck Parks, Dorothy, Appleton Ouam, Godeo, Glyndon Quitney, Anna, Lowry Rhode, Bernard, Maynard Rice, George, Renville Rike, Adolph, Echo Rime, Carl, Murdock Romo, Lawrence, Granite Falls Ross, William, Morris Rixe, Harry, Graceville Shervey, Jens, Watson Shoquist, Oscar, Clinton Skoien. Alvin, Dawson Stotesbery, Leslie, Barry Schaaf, Valentina, Murdock Shroeder, Clarence, Morris Stark, Charlotte, Kensington Sunde, Bernice, Herman Thissen, Philip, Raymond Thompson, Peter, Starbuck Thompson, Alice, Glenwood Thompson, Gladys, Starbuck Thompson, John, Glenwood Tjosvold, Orton, Granite Falls Tollefson, Alfred, Starbuck Torgelson, Elmer, Milan Thickle, Agnes, Hancock Thorstenson, Agnes, Milan Tibbets, Elden, Morris Volden, Alvin, Watson Weaver, Roy, Wendell Wenschlag, Herman, Clare City, S. D. Wenschlag, Robert, Clare City, S. D. Wendt, Leona, Hancock



